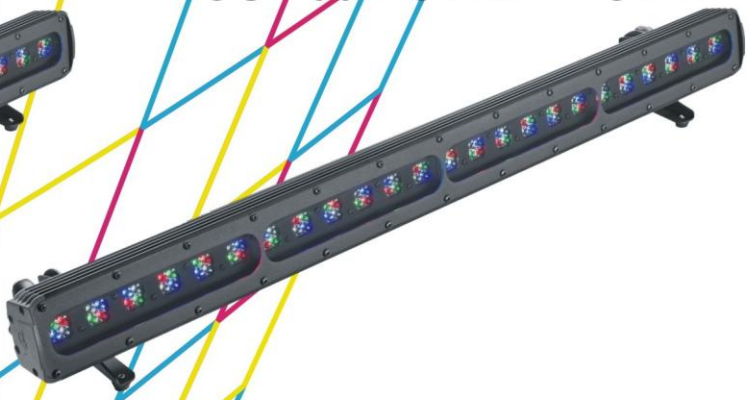
FOS 100 POWER SOLO
FOS 100 POWER

FOS 100 POWER SOLO
FULL RGBW

FOS 100 POWER
FULL RGBW

FOS 100 POWER SOLO
RGBW

FOS 100 POWER RGBW



User's Manual Rel 1.1 **GB**

D.T.S. Illuminazione srl - ITALY
http://www.dts-lighting.it

DTS
The Lighting Company

Made in Italy

Le informazioni contenute in questo documento sono state attentamente redatte e controllate. Tuttavia non è assunta alcuna responsabilità per eventuali inesattezze. Tutti i diritti sono riservati e questo documento non può essere copiato, fotocopiato, riprodotto per intero o in parte senza previo consenso scritto della D.T.S .
D.T.S. si riserva il diritto di apportare senza preavviso cambiamenti e modifiche estetiche, funzionali o di design a ciascun proprio prodotto. D.T.S non assume alcuna responsabilità sull'uso o sull'applicazione dei prodotti o dei circuiti descritti.

The information contained in this publication has been carefully prepared and checked. However, no responsibility will be taken for any errors. All rights are reserved and this document cannot be copied, photocopied or reproduced, in part or completely, without prior written consent from D.T.S.
D.T.S. reserves the right to make any aesthetic, functional or design modifications to any of its products without prior notice. D.T.S. assumes no responsibility for the use or application of the products or circuits described herein.

Les informations contenues dans le présent manuel ont été rédigées et contrôlées avec le plus grand soin. Nous déclinons toutefois toute responsabilité en cas d'éventuelles inexactitudes. Tous droits réservés. Ce document ne peut être copié, photocopié ou reproduit, dans sa totalité ou partiellement, sans le consentement préalable de D.T.S.
D.T.S. se réserve le droit d'apporter toutes modifications et améliorations esthétiques, fonctionnelles ou de design, sans préavis, à chacun de ses produits. D.T.S. décline toute responsabilité sur l'utilisation ou sur l'application des produits ou des circuits décrits.

Las informaciones contenidas en este documento han sido cuidadosamente redactadas y controladas. Con todo, no se asume ninguna responsabilidad por eventuales inexactitudes. Todos los derechos han sido reservados y este documento no puede ser copiado, fotocopiado o reproducido, total o parcialmente, sin previa autorización escrita de D.T.S.
D.T.S. se reserva el derecho a aportar sin previo aviso cambios y modificaciones de carácter estético, funcional o de diseño a cada producto suyo. D.T.S. no se asume responsabilidad de ningún tipo sobre la utilización o sobre la aplicación de los productos o de los circuitos descritos.

INDEX:

1- SYMBOLS 4
2- GENERAL WARNING 5
3- GENERAL WARRANTY CONDITION 5
4- TECHNICAL FEATURES 5
5- MAIN ELECTRICAL CHARACTERISTICS 6
6- ACCESSORIES 7
7- IMPORTANT SAFETY INFORMATION 10
7.1 Fire prevention
7.2 Prevention of electric shock
7.3 Safety
8- INPUT / OUTPUT CONNECTIONS 11
9- DMX SIGNAL CONNECTION 13
9.1 DMX Addresses
9.2 Selecting the DMX address
10- FIRMWARE UPDATING 15
11- DISPLAY FUNCTIONS 16
12- SERVICE MENU 20
13- DMX PROTOCOL 22

1- SYMBOLS

Graphic symbols used on this manual

THIS SYMBOL INDICATES A HOT SURFACE

THIS SYMBOL INDICATES ELECTRIC SHOCK RISK

THIS SYMBOL INDICATES GENERAL RISK

THIS SYMBOL MEANS “DO NOT PLACE THE UNIT ON INFLAMMABLE SURFACES”

THIS SYMBOL INDICATES THE MINIMUM DISTANCE TO BE KEPT BETWEEN THE DEVICE AND THE LIT OBJECT

2- GENERAL WARNING

Read the instruction contained in this user manual carefully, as they give important information regarding safety during installation, use and maintenance.
The device is not for domestic use and must be installed by a qualified electrician or experienced person.
Always disconnect the device from the mains before maintenance.
The device must always be equipped with an efficient ground connection.

3- GENERAL WARRANTY CONDITIONS

The unit is guaranteed for 36 months from the date of purchase against manufacturing material defects.

4- TECHNICAL FEATURES

OVERVIEW

Delivering no less than 8.400 Lux / 3m, the new FOS 100 POWER is the most powerful model in the FOS line of compact LED bars, designed for lighting and colouring large surfaces with a homogeneous projection.
FOS 100 POWER is ideal in a variety of applications, either indoor or outdoor, such as: lighting building facades, monuments, public and commercial spaces; creating uniform background colours and cycloramas, etc.
FOS 100 POWER is available in two versions.
FOS 100 POWER FULL COLOUR: 24 x Full Colour (RGBW) LEDs;
FOS 100 POWER RGBW: 96 x RGBW LEDs.
Three dedicated lenses sets (Spot, Medium flood, Wide flood) are available for each model.

PRODUCT CODES:

03.LB031S.T10	FOS 100 POW.SOLO IP65 RGBW NARROW BLACK
03.LB031S.T25	FOS 100 POW.SOLO IP65 RGBW MEDIUM BLACK
03.LB031S.T40	FOS 100 POW.SOLO IP65 RGBW WIDE BLACK
03.LB031S.F10	FOS 100 POW.SOLO IP65 FULLRGBW NARROW BLACK
03.LB031S.F25	FOS 100 POW.SOLO IP65 FULLRGBW MEDIUM BLACK
03.LB031S.F40	FOS 100 POW.SOLO IP65 FULLRGBW WIDE BLACK

03.LB031.T10	FOS 100 POWER IP65 RGBW NARROW BLACK
03.LB031.T25	FOS 100 POWER IP65 RGBW MEDIUM BLACK
03.LB031.T40	FOS 100 POWER IP65 RGBW WIDE BLACK
03.LB031.F10	FOS 100 POWER IP65 FULLRGBW NARROW BLACK
03.LB031.F25	FOS 100 POWER IP65 FULLRGBW MEDIUM BLACK
03.LB031.F40	FOS 100 POWER IP65 FULLRGBW WIDE BLACK

LED Technology
FOS 100 POWER FULL COLOUR: 24 x Full Colour (RGBW) LEDs;
FOS 100 POWER RGBW: 96 x RGBW LEDs.

Optical group

3 lenses sets available (Spot, Medium flood, Wide flood)

Control
Via any DMX lighting console (FOS 100 POWER SOLO)

Connectors
M16 connection system between Power supply and LED bar (All versions).
Powerconn + XLR connectors (FOS 100 POWER SOLO IP20);
Harting connectors (FOS 100 POWER SOLO IP65*****)

Power supply
Electronic full range power supply 90-260V - AC/50-60 Hz
Integrated power supply (FOS 100 POWER SOLO) / LED controller
(Z10 POWER IP65***** or Z10 POWER IP20);
External dedicated Z40 power supply (FOS 100 POWER) / LED controllers

***** not yet available

5- MAIN ELECTRICAL CHARACTERISTICS (FOS 100 POWER SOLO)

Input Voltage Range : Vin 90 - 260 Vac
Frequency : 50 / 60 Hz
Power Consumption Range : 10 - 200 W
Power Factor (Pf) : 0.95 electronic PFC controller
Efficiency : 90% typical

Control Input:
Control Signal : DMX 512
Dimming System : Constant Current PWM
Address Range : DMX 512 channels addressable by display

6- ACCESSORIES

As standard (IP20)

1 x User's Manual
1 x POWERCON IN male cable connector (FOS 100 POWER SOLO)
(D.T.S. Code: 0520P014)
1 x POWERCON OUT male cable connector (FOS 100 POWER SOLO)
(D.T.S. Code: 0520P029)
1 x XLR 5 pins male cable connector (D.T.S. Code: 0508B028)
1 x XLR 5 pins female cable connector (D.T.S. Code: 0508B027)
1 x joint/spacer (D.T.S. Code: 00M09519) with 2 x knobs (D.T.S. Code: 0511P014)

As standard (IP65)

Up to be defined

Optional (on request)

Lenses set Spot available for each model
Lenses set Medium flood available for each model
Lenses set Wide flood available for each model
M16 female (9 pole) cable connector (Cod. 0508B106)
M16 male (9 pole) cable connector (Cod. 0508B105)
Z40 power supply/LED controller (FOS 100 POWER) (Cod. 03.LA.120)

DIMENSIONS

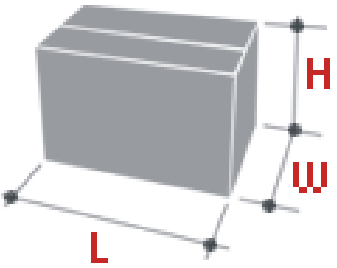
FOS 100 POWER SOLO

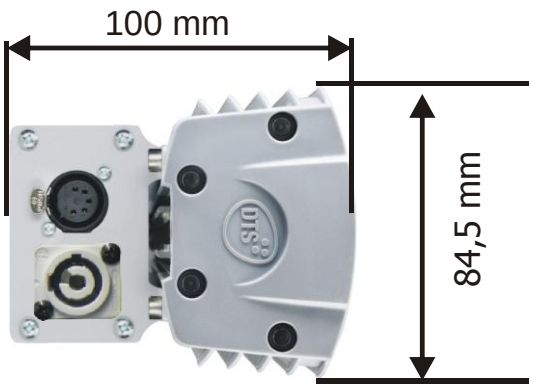
Unit Dimensions
(LxWxH)
990 x 100 x 84,5 mm

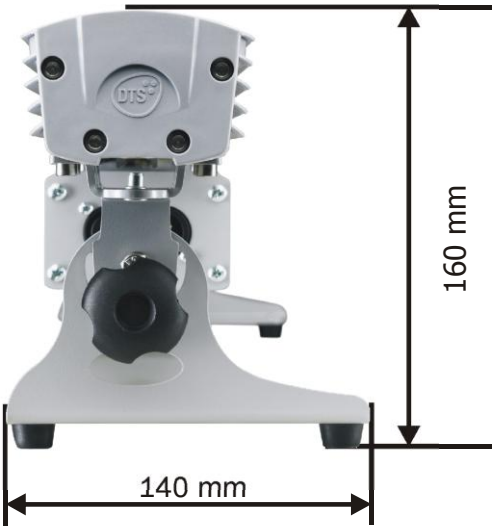
Weight
7 Kg

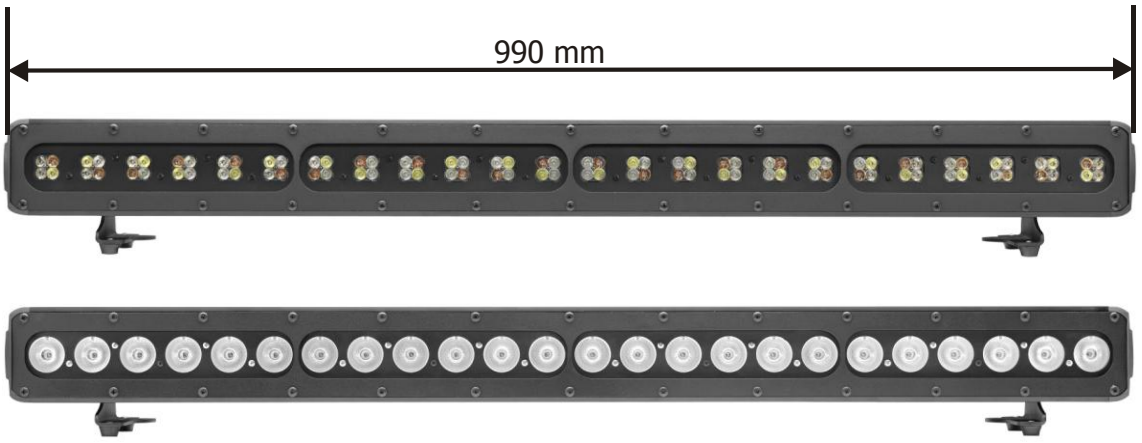
Packing Dimensions
(LxWxH)
1060 x 160 x 200 mm

Weight
8,5 Kg









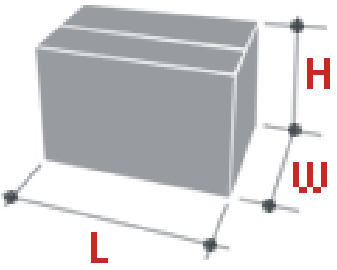
FOS 100 POWER

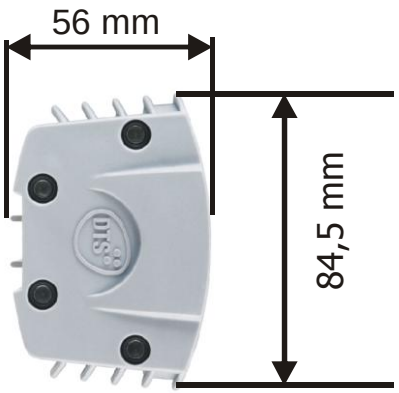
Unit Dimensions
(LxWxH)
990 x 56 x 84,5 mm

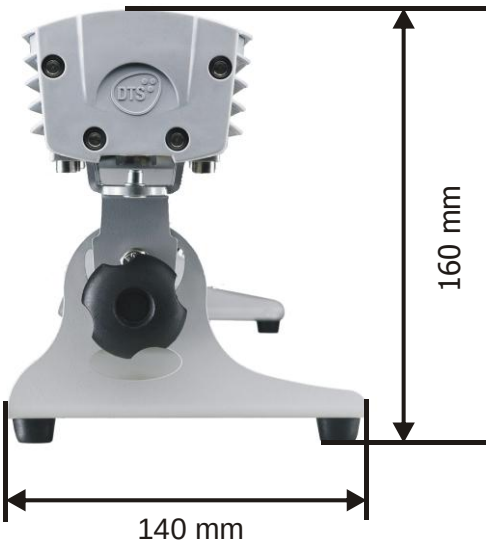
Weight
5,5 Kg

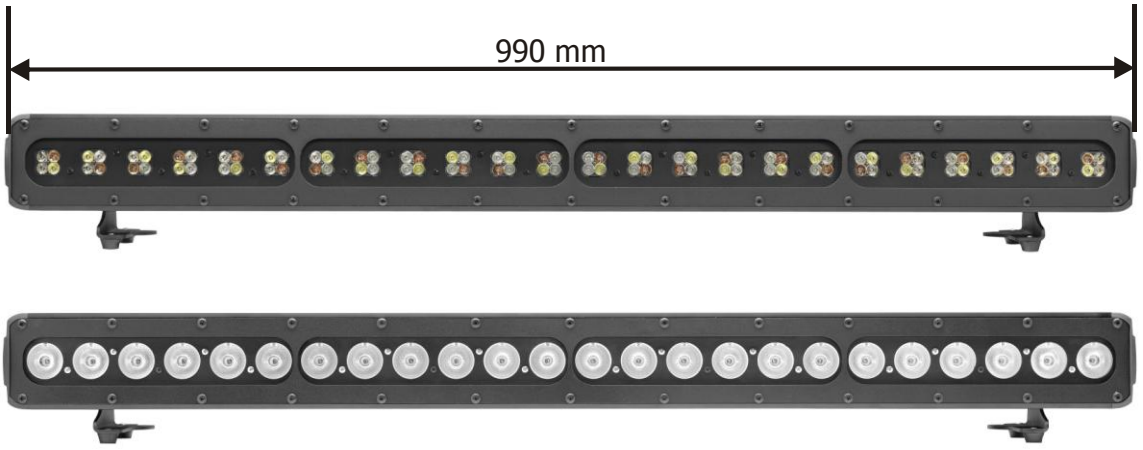
Packing Dimensions
(LxWxH)
1060 x 160 x 200 mm

Weight
7 Kg









7- IMPORTANT SAFETY INFORMATION

7.1 Fire prevention:

Never locate the fixture on any flammable surface.
Minimum distance from flammable materials: 10 cm.

Minimum distance from the closest illuminable surface: 10 cm.

Replace any blown or damaged fuses only with those of identical value.

7.2 Prevention from electric shock:

High voltage is present inside the unit.
Unplug the unit prior to performing any operation which involves touching the inside of the unit.
This equipment must be grounded, do not connect to non-grounded supplies.
The use of a thermal magnetic circuit breaker is recommended for each FOS 100 POWER SOLO unit.
Use only AC supplies 90-260V, 50 / 60 Hz.
FOS 100 POWER SOLO (IP 20) should never be located in position exposed to rain or in areas of extreme humidity.
A good air ventilation is essential for proper equipment work.

7.3 Safety:

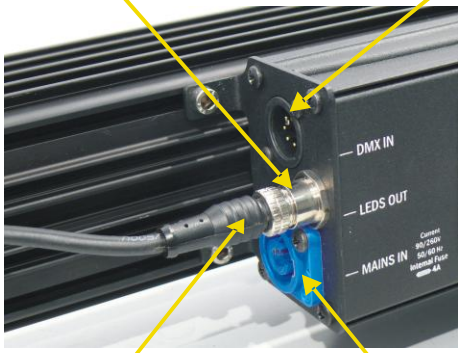
The external surface of the unit may exeed 50°C; never handle the unit until at least 5 minutes have elapsed since the unit was turned off.

Never install the unit in an enclosed area lacking sufficient air flow.
The ambient temperature should not exeed 40°C and should not be lower than -10°C.

8- INPUT / OUTPUT CONNECTIONS
FOS 100 POWER SOLO IP20 (FOS 100 POWER SOLO IP65 NOT YET AVAILABLE)

M16 LED output
Female panel connector

DMX IN/OUT
XLR 5 pins Male / Female
Panel Connectors

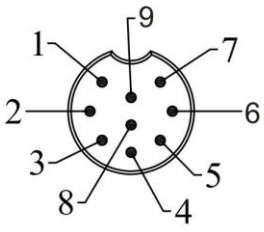


Mains 90-260 V AC
50-60 Hz input Powercon
Female panel connector

Mains 90-260 V AC
50-60 Hz output Powercon
Female panel connector
MAX load:
230 V AC = 10 FOS 100 POWER SOLO
100 V AC = 5 FOS 100 POWER SOLO

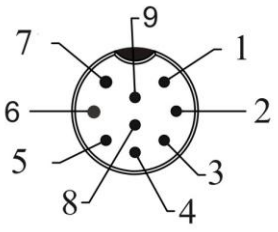
M16 LED input
Male cable connector

M16 Female
panel connector



Front View

M16 Male
cable connector



Front View

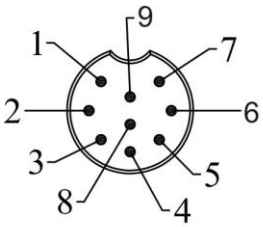
LED OUTPUTS

WIRES SEQUENCE COLOURS	PIN OUT
PIN 1 - BLUE PIN 2 - GREEN PIN 3 - YELLOW PIN 4 - ORANGE PIN 5 - RED PIN 6 - BROWN PIN 7 - BLACK PIN 8 - GREY PIN 9 - WHITE	PIN 1: RED + PIN 2: GREEN + PIN 3: BLUE + PIN 4: WHITE + PIN 5: COMMON PIN 6: RED - / GREEN - / BLUE - / WHITE - PIN 7: PIN 8: NTC (THERMAL SENSOR) PIN 9: NTC

FOS 100 POWER

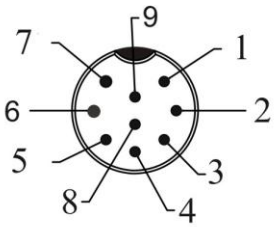
M16 LED input
Male cable connector

M16 Female
panel connector



Front View

M16 Male
cable connector



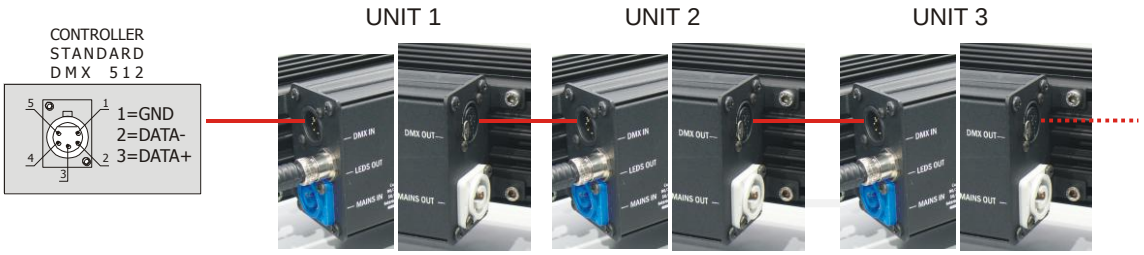
Front View

LED OUTPUTS

WIRES SEQUENCE COLOURS	PIN OUT
PIN 1 - BLUE PIN 2 - GREEN PIN 3 - YELLOW PIN 4 - ORANGE PIN 5 - RED PIN 6 - BROWN PIN 7 - BLACK PIN 8 - GREY PIN 9 - WHITE	PIN 1: RED + PIN 2: GREEN + PIN 3: BLUE + PIN 4: WHITE + PIN 5: COMMON PIN 6: (RED - / GREEN - / BLUE - / WHITE -) PIN 7: PIN 8: NTC (THERMAL SENSOR) PIN 9: NTC

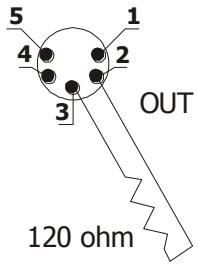
9- DMX SIGNAL CONNECTION (FOS 100 POWER SOLO):

The unit operates using a digital DMX 512 signal.
Connection between the controller and the unit or between units must be carried out using a two pair screened ø 0.5 mm.
Ensure that the conductors do not touch each other.
Do not connect the cable ground to the DMX connector chassis.
The plug housing must be isolated. Connect the mixer signal to the DMX IN projector plug and connect it to the next projector by connecting the DMX OUT plug on the first unit to the DMX IN plug of the second one.
In this way, all the projectors are cascade connected.

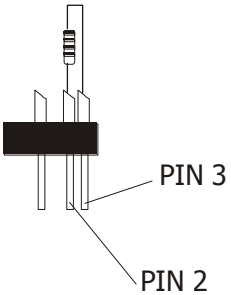


If the display showing the DMX address flashes, then one of the following errors has occurred:
- DMX signal not present
- DMX reception problem

For Installations where long distance DMX cable connections are needed, we suggest to use a DMX terminator.
The DMX terminator is a male XLR 3-5 pins connector with a 120 ohm resistor Between pin 2 and 3.
The DMX terminator must be plugged into the last unit (DMX out panel connector) of the DMX line.



PLACE A 120 OHM RESISTOR BETWEEN PIN 2 AND 3 OF A MALE XRL CONNECTOR AND PLUG IT INTO THE DMX OUT PANEL CONNECTOR OF THE LAST UNIT CONNECTED TO THE DMX LINE



9.1 DMX addresses

FOS 100 POWER SOLO (all models) can be used in seven different modes: 10 DMX channels mode (default), 6 DMX channels mode (Shutter + Dimmer + RGBA), WALL mode (6 DMX channels; for use with DTS Wall mounted DMX controller 0514L007), M4CH mode (5 DMX channels; Dimmer + RGBA), RGBA mode (4 channels), 1 DMX channel mode or CUSTOM DMX mode (not yet implemented).

If you want to use the FOS 100 POWER SOLO in 10 channels mode, select the 10 CH mode from the MODE menu and set the following addresses on the mixer:

Projector 1	A001
Projector 2	A011
Projector 3	A021
…..	A….
projector 6	A051

If you want to select the next projector, just add “10”

If you want to use the FOS 100 POWER SOLO in “WALL” mode, select the “WALL” mode from the MODE menu and set the following addresses on the mixer: (To be used only with DTS Wall mounted DMX controller 0514L007)

Projector 1	A001
Projector 2	A009
Projector 3	A017
…..	A….
projector 6	A041

If you want to select the next projector, just add “8”.
DTS Wall mounted DMX controller 0514L007 assign 8 DMX channels per unit even if some channels are not used

9.2 Selecting the DMX address

1) Press the UP-DOWN key until you reach the required DMX address. The numbers on the display will start to flash (but the new DMX address hasn't yet been set).
2) Press ENTER to confirm your selection. The numbers on the display will stop flashing and the projector is now controlled by the new DMX address.

TIPS: if you keep pushed the UP or DOWN keys, the channels are calculated more quickly and you get a faster selection.

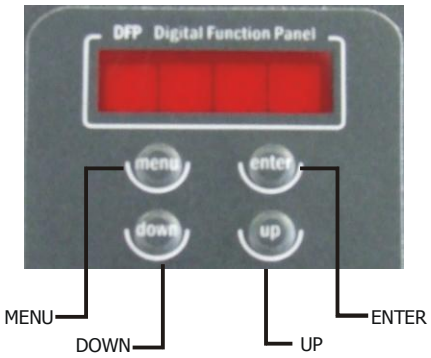
10- FIRMWARE UPDATING

Warning:
This procedure require a base knowledge of Windows computer applications.
Please refer to an authorised D.T.S. service centre.

To update the software version of the FOS 100 POWER SOLO you need:
D.T.S. RED BOX interface (D.T.S. Code: 03.LA.008).
USB-DMX Driver for the D.T.S. RED BOX interface.
D.T.S. Firmware upgrade utility program.
(The driver and the installation procedure are available in our web site www.dts-lighting.it)

Updating the software version.
Please follow the procedure below to perform the update:
1. Install the D.T.S. RED BOX USB-DMX driver on the PC you will use to update the unit software.
2. Connect the D.T.S. RED BOX interface to the PC by using a USB cable.
3. Connect the D.T.S. RED BOX interface to the fixture by using a DMX cable.
4. Download the new software version into the unit by using D.T.S. Firmware upgrade utility program.

11- DISPLAY FUNCTIONS



The FOS 100 POWER SOLO display panel shows all the available functions . Using these functions, it is possible to change some of the parameters and add some functions. Changing the D.T.S. setting can vary the functions of the unit so that it does not respond to the DMX 512 signal used to control it. Carefully follow the instructions below before carrying out any variations or selections.
NOTE: the symbol ☛ shows which key has to be pushed to obtain the desired function.

Software version 4.0.7

A001 — MENU — Up-Down — dISP — ENTER — Up-Down — POSI — ENTER — Up-Down — AA Floor Position — ENTER

UU Suspension Position — ENTER

REVERSE DISPLAY
Reverses display's reading depending on the mounting position (On the ground or suspended).

Up-Down — StbY — ENTER — Up-Down — oFF Display OFF — ENTER

DISPLAY STAND BY
To turn off the display (after 5 seconds) or leave it always on.

on Display Always ON — ENTER

MENU — Up-Down — nOdE — ENTER — Up-Down — 10CH 10 CHANNELS — ENTER — Default DMX Mode = 10 CH

DMX MODE
To select DMX mode : 10 DMX channels mode (default), 6 DMX channels mode (Shutter + Dimmer + RGB), WALL mode (6 DMX channels; for use with DTS Wall mounted DMX controller 0514L007), M3CH mode (4 DMX channels; Dimmer + RGB), RGB mode (4 channels), 1 DMX channel mode.

Up-Down — UALL 6 CHANNELS — ENTER

Up-Down — 1CH 1 CHANNEL — ENTER

Up-Down — rGbA RGBA(4 CHANNELS) — ENTER

Up-Down — 6CH 6 CHANNELS — ENTER

Up-Down — M4cH M4CH(5 CHANNELS) — ENTER — Dimmer + RGBA

AUX mode let you activate an external ON -OFF control on IR connector.

Up-Down — CUSt — ENTER — Up-Down — SEL — ENTER — Custom mode enabled

ShoU — ENTER — Show Custom settings

SEt — ENTER — Parameters Setting on Custom Mode

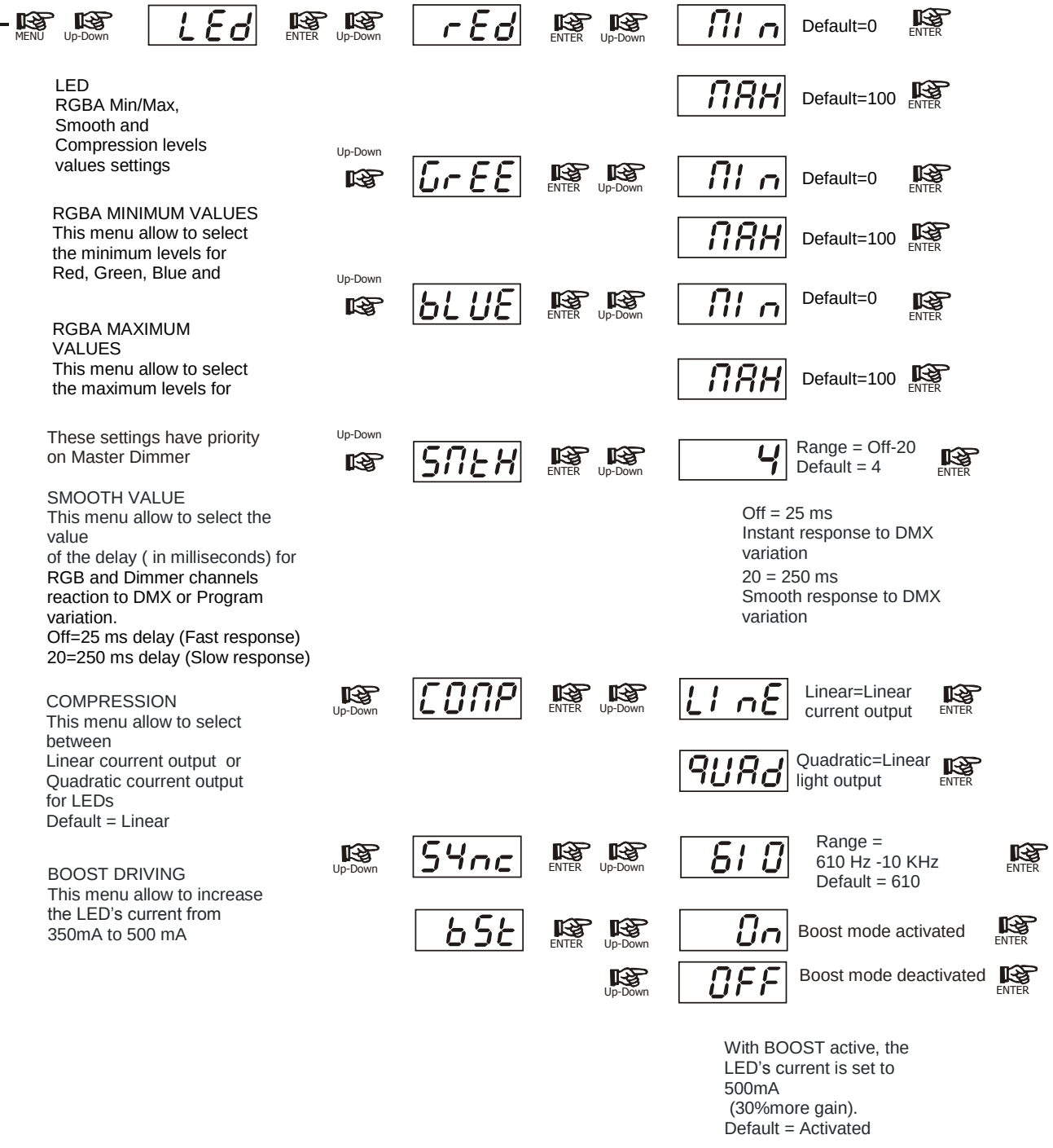
CUSTOM DMX mode let you set the parameters for Shutter, Dimmer, Red, Green, Blue, Ctc, Macro and Function to the desired DMX channels. (not yet implemented)

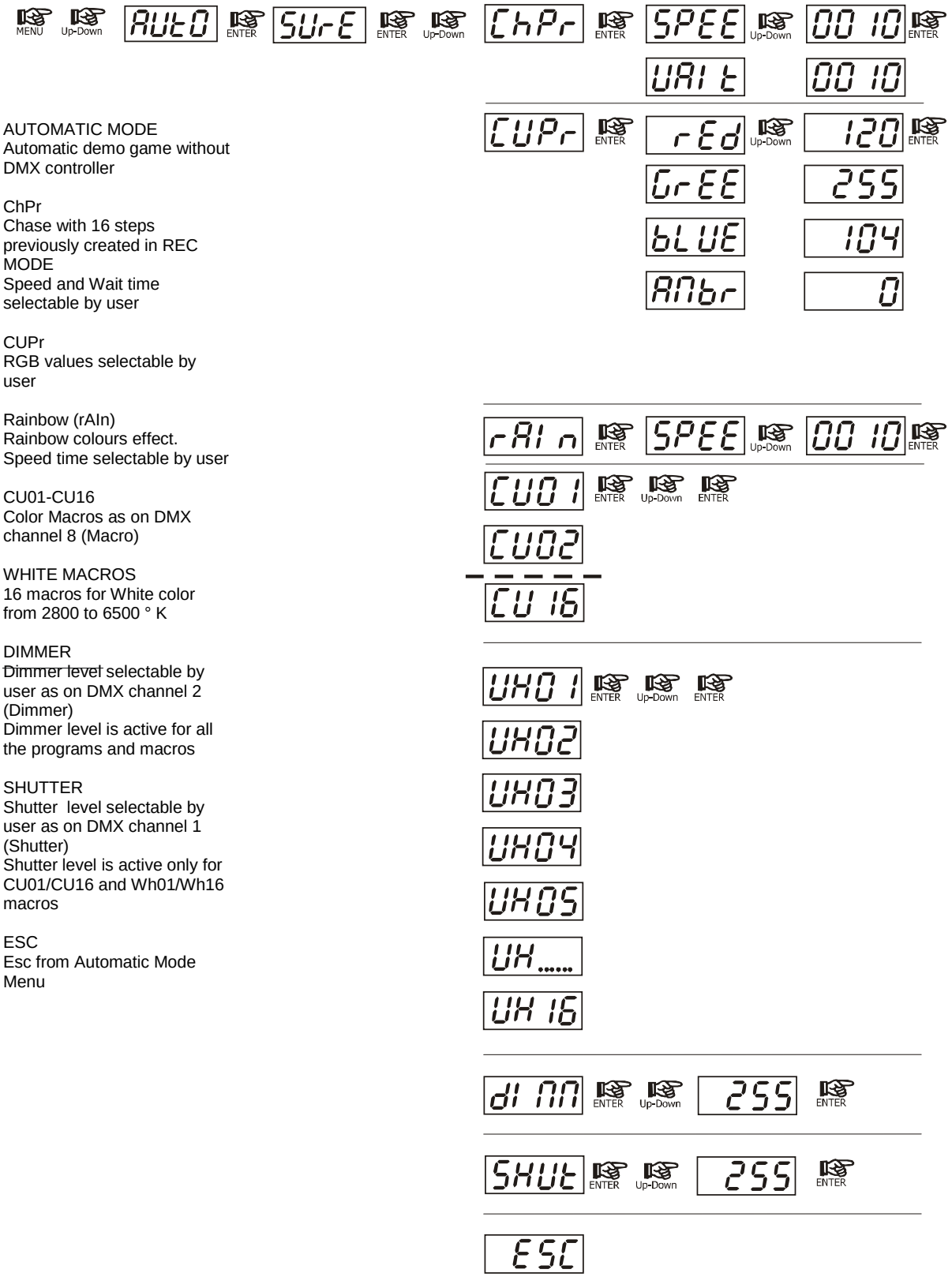
Up-Down — AUX — AUX MODE — ENTER — External ON – OFF control on IR connector

MACRO Function enables channel mapping macro rainbow effects
STD (default)

Up-Down — MACr — ENTER — Up-Down — Std — ENTER — Standard mode enabled (Default)

EXt — ENTER — Extended mode enabled: Rainbow effects on MACRO channel


MENU
Up-Down
LED
ENTER
Up-Down
rED
ENTER
Up-Down
MIN
Default=0
ENTER
MAX
Default=100
ENTER
LED
RGBA Min/Max,
Smooth and
Compression levels
values settings
Up-Down
GrEE
ENTER
Up-Down
MIN
Default=0
ENTER
MAX
Default=100
ENTER
RGBA MINIMUM VALUES
This menu allow to select
the minimum levels for
Red, Green, Blue and
Up-Down
bLUE
ENTER
Up-Down
MIN
Default=0
ENTER
RGBA MAXIMUM
VALUES
This menu allow to select
the maximum levels for
MAX
Default=100
ENTER
These settings have priority
on Master Dimmer
Up-Down
SMTH
ENTER
Up-Down
4
Range = Off-20
Default = 4
ENTER
SMOOTH VALUE
This menu allow to select the
value
of the delay (in milliseconds) for
RGB and Dimmer channels
reaction to DMX or Program
variation.
Off=25 ms delay (Fast response)
20=250 ms delay (Slow response)
Off = 25 ms
Instant response to DMX
variation
20 = 250 ms
Smooth response to DMX
variation
Up-Down
COMP
ENTER
Up-Down
LInE
Linear=Linear
current output
ENTER
COMPRESSION
This menu allow to select
between
Linear courrent output or
Quadratic courrent output
for LEDs
Default = Linear
QUAd
Quadratic=Linear
light output
ENTER
Up-Down
SYnc
ENTER
Up-Down
610
Range =
610 Hz -10 KHz
Default = 610
ENTER
BOOST DRIVING
This menu allow to increase
the LED's current from
350mA to 500 mA
bSt
ENTER
Up-Down
On
Boost mode activated
ENTER
Up-Down
OFF
Boost mode deactivated
ENTER
With BOOST active, the
LED's current is set to
500mA
(30%more gain).
Default = Activated



AUTOMATIC MODE
Automatic demo game without DMX controller

ChPr
Chase with 16 steps previously created in REC MODE
Speed and Wait time selectable by user

CUPr
RGB values selectable by user

Rainbow (rAIn)
Rainbow colours effect.
Speed time selectable by user

CU01-CU16
Color Macros as on DMX channel 8 (Macro)

WHITE MACROS
16 macros for White color from 2800 to 6500 ° K

DIMMER
~~Dimmer level~~ selectable by user as on DMX channel 2 (Dimmer)
Dimmer level is active for all the programs and macros

SHUTTER
Shutter level selectable by user as on DMX channel 1 (Shutter)
Shutter level is active only for CU01/CU16 and Wh01/Wh16 macros

ESC
Esc from Automatic Mode Menu

MENU Up-Down rEC ENTER 10CH ENTER r001

n001

n002

n0 .....

n0 16

REC MODE
In DMX Recorder Mode, it is possible to create and store the scenes of the ChPr by using an external DMX controller.
The unit must be setted to 10 channels MODE

DMX Recorder Mode
For the programming of ChPr by using a DMX controller, besides the 10 channels necessary to control the unit a further 3 DMX channels are needed.
So that in RECORDER mode (via DMX) the unit will need 13 channels to be correctly programmed.
The three new DMX channels are:
- DMX channel 11 = SCENES channel
From 0-10 = no function (r001)
From 11-255 are displayed the programmable scenes (max 16 scenes from M001 to M0016)
- DMX channel 12 = EDIT channel:
From 0-19 = no function
From 20-234 the unit runs the configuration given by the received input DMX values.
With the channel SCENES it is possible to pass from one step to the next while with REC it is possible to record the selected scene.
From 235-255 the unit runs the configuration given by the received input DMX values closing the sequence as last scene.
With the channel REC it is possible to record the selected scene as last scene.
- DMX channel 13 = RECORDING channel
Records the set scene with a variation between 0 to 255 (the display flashes indicating that the scene has been recorded).It is advised that you keep the REC channel set to 0 and to run through the 255 only once you have decided to save the scene. If ChPr is not closed, by indicating the last scene (Edit channel between 235-255), in playback mode all 16 scenes will be played through even if not programmed

MENU Up-Down SLAU ENTER SUrE ENTER Up-Down SLU ENTER

ESC

SLAVE MODE
Slave mode for ChPr program.
All slave units will be synchronised with master unit, running their own Chpr program.

MENU Up-Down Ir ENTER Up-Down On ENTER

OFF

INFRARED MODE
Infrared remote control.
By activating Ir MODE, it will be possible to navigate through the unit functions by using the D.T.S. infrared remote control.
D.T.S. Code :0514L008

NOTE:
External infrared remote sensor needed.
D.T.S. Code :03.LA.016

MENU Up-Down FAn ENTER Up-Down 12U ENTER

OFF

FAN SPEED CONTROL
Internal Fan Speed control selectable by user.
Range: OFF - 24 volt Default : 24 volt

MENU Up-Down ENEr ENTER Up-Down SEL ENTER Up-Down On ENTER

OFF

EMERGENCY
Emergency operating mode.
By setting Emergency mode, it will be possible to select one of the 16 preprogrammed WHITE cues that will then ran if DMX signal is missing or not available.
Useful for Emergency EXIT illumination on public areas.

Default = OFF

UhIt ENTER

Default = White 1

dIMM ENTER

Default = 255

12 - SERVICE MENU
For technical personnel only

To operate this menu:
-Connect the unit to the main
-While reset is running, press the MENU and ENTER keys at the same time.

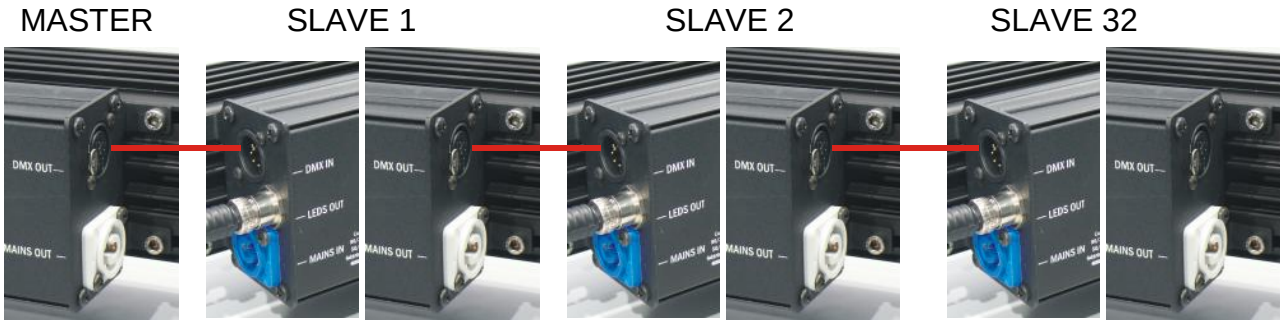
ChAn CHANNELS
This menu allow to set 3 channels or 4 channels LEDs output mode
3 LEDs channels output mode = Not Used on FOS 100 POWER SOLO
4 LEDs channels output mode = Default

Pr-Od PRODUCT MODEL SELECTION:
- FOS 100 POWER = Default
- TITAN PLUS = only for TITAN PLUS unit
- DELTA 8= only for DELTA 8 unit

ESC EXIT
Exit from hidden menu.

AUTOMATIC OPERATION (AUTO):

FOS 100 POWER SOLO can work in automatic mode without a DMX controller. First of all connect the projectors with a DMX cable (picture below). A maximum quantity of 32 slave units can be connected to the same Master unit.



To activate Auto mode on the first unit, use the menu to run through the different modes until AUTO appears on the display, and press enter.
Now it is possible to choose between the different pre-programmed games (CUPr-RAIn-CU01/CU16-Wh01/Wh16) or ChPr which is user programmable through REC mode. To confirm game activation press ENTER on the selected GAME.

CUPr-RAIn-CU01/CU16-Wh01/Wh16

The first unit that will work as a Master should be placed in Automatic mode (AUTO), the other units have to be placed 10 channels DMX mode (MODE 10 CH) and the DMX address should be set at A001. For RaIn (rainbow) game it is possible to select the speed for the colour changhing (SPEE).
DIMMER function (in AUTOMATIC MODE) is active for all the programs.

SHUTTER function (in AUTOMATIC MODE) is active only for CU01/CU16 and Wh01/Wh16 macros.

ChPr MASTER/SLAVE

The first unit that will function as a Master must be set to Automatic mode (AUTO), the other units must be set to Slave mode (SLAV), selectable through the menu. In this way all the Slave units will be synchronised with the master and running their own ChPr game.
On the master unit it is possible to vary the Speed time (SPEE) for the colour changhing and the Wait time (UAIt) between the steps.
Speed time and Wait time on the Master, have priority on the slave units.
NB: It is possible to run GA.Pr on the other units even though these do not have GA.Pr programmed. You can do this by setting the units to 10 channels DMX mode and selecting DMX address A001.

REC MODE

It is possible to program your own game on the FOS 100 POWER SOLO that will then run it in AUTO mode (ChPr).
Each unit can have its own programmed game.
In REC mode the unit must be set to 10 channels mode.
To program the ChPr by using a DMX controller, you need 3 more channels in addition to the 10 channels necessary to control the unit.
So that in RECORDER mode (via DMX) the unit will need 13 DMX channels to be correctly programmed.

The three new DMX channels are:

DMX channel 11 = SCENES channel:
- From 0-24 = no function
- From 25-255 the programmable scenes are displayed (max 16 scenes from M001 to M0016)

DMX channel 12 = EDIT channel:
- From 0-19 = no function
- From 20-234 the unit runs the configuration given by the received input DMX values.

With the channel SCENES it is possible to pass from one step to the next while with REC it is possible to record the selected scene.
-From 235-255 the unit runs the configuration given by the received input DMX values, closing the sequence as last scene.
With the channel REC it is possible to record the selected scene as last scene.

DMX channel 13 = RECORDING channel

Records the set scene with a variation between 0 to 255 (the display flashes indicating that the scene has been recorded). It is advised that you keep the REC channel set to 0 and to run through the 255 only once you have decided to save the scene. If ChPr is not closed, by indicating the last scene (Edit channel between 235-255), in playback mode all 16 scenes will be played through, even if not programmed

13- DMX PROTOCOL

10 CHANNELS MODE

1 SHUTTER
2 DIMMER
3 RED
4 GREEN
5 BLUE
6 AMBER
7 WHITE (Pre-programmed whites at different colour temperatures)
8 CTC
9 COLOURS MACRO
10 FUNCTIONS

DMX CHANNEL	1	Parameter: **SHUTTER / STROBE**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-009					**Black-out**
010-019					**Open**
020-029					**Black-out**
030-119					**Strobe (from 3.27 s to 30 ms)**
120-149					**Pulse up (from 42.6 s to 120 ms)**
150-179					**Pulse down (from 42.6 s to 120 ms)**
180-204					**Random strobe (Dimmer channel active)**
205-229					**Full independent Random Strobe (Dimmer channel disabled)**
230-234					**Red, Yellow, Cyan and Blue colour effects at variable speed**
235-255					**Open**

DMX CHANNEL	2	Parameter: **DIMMER**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-007					**Black-out**
008-255					**Proportional dimmer**

DMX CHANNEL	3	Parameter: **RED**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	4	Parameter: **GREEN**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	5	Parameter: **BLUE**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	6	Parameter: **AMBER**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	7	Parameter: **WHITE PREPROGRAMMED (White at diff. colour temperature)**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-055	**23**				**No Function**
056-105	**80**				**Full (Red-Green-Blue at Full)**
106-155	**130**				**White DTS**
156-205	**180**				**Custom White Create (RGB levels selectable by DMX)**
206-255	**230**				**White CTC (Channel 15 CTC enabled)**

DMX CHANNEL	8	Parameter: **CTC (Colour Temperature Correction)**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Linear control temperature correction. 0 = 2000°K / 255 = 7200°K**

DMX CHANNEL	9	Parameter: **COLOURS MACRO STD**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-014				**No Function**	
015-029				**Macro 1**	
030-044				**Macro 2**	
045-059				**Macro 3**	
060-074				**Macro 4**	
075-089				**Macro 5**	
090-104				**Macro 6**	
105-119				**Macro 7**	
120-134				**Macro 8**	
135-149				**Macro 9**	
150-164				**Macro 10**	
165-179				**Macro 11**	
180-194				**Macro 12**	
195-209				**Macro 13**	
210-225				**Macro 14**	
226-239				**Macro 15**	
240-255				**Macro 16**	

DMX CHANNEL	9	Parameter: **COLOURS MACRO EXT**		
000-014				**No Function**
015-022				**Macro 1**
023-030				**Macro 2**
031-038				**Macro 3**
039-046				**Macro 4**
047-054				**Macro 5**
055-062				**Macro 6**
063-070				**Macro 7**
071-078				**Macro 8**
079-086				**Macro 9**
087-094				**Macro 10**
095-102				**Macro 11**
103-110				**Macro 12**
111-118				**Macro 13**
119-126				**Macro 14**
127-134				**Macro 15**
135-142				**Macro 16**
143-504				**Rainbow Speed 1 (6 Sec.)**
151-158				**Rainbow Speed 2 (15 Sec.)**
159-166				**Rainbow Speed 3 (30 Sec.)**
167-174				**Rainbow Speed 4 (45 Sec.)**
175-182				**Rainbow Speed 5 (60 Sec.)**
283-190				**Rainbow Speed 6 (120 Sec.)**
191-198				**Rainbow Speed 7 (150 Sec.)**
199-206				**Rainbow Speed 8 (180 Sec.)**
207-214				**Random Speed 1 (0,5 s)**
215-222				**Random Speed 2 (1 s)**
223-230				**Random Speed 3 (2 s)**
231-238				**Random Speed 4 (5 s)**
239-246				**Random Speed 5 (10 s)**
247-255				**Random Speed 6 (30 s)**

DMX CHANNEL	10	Parameter: **FUNCTIONS (Recall, Create and Store the Custom white)**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
IF CHANNEL 7 WHITE PREPROGRAMMED = DMX range value 156 – 205)					
000-079					**Custom White Recall**
080-160					**Custom White Create (Enable Custom White Creation)**
161-255					**Custom White Store (Store the Custom White created)**

6 CHANNELS MODE

1 SHUTTER
2 DIMMER
3 RED
4 GREEN
5 BLUE
6 AMBER

DMX CHANNEL	1	Parameter: **SHUTTER / STROBE**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-009					**Black-out**
010-019					**Open**
020-029					**Black-out**
030-119					**Strobe (from 3.27 s to 30 ms)**
120-149					**Pulse up (from 42.6 s to 120 ms)**
150-179					**Pulse down (from 42.6 s to 120 ms)**
180-204					**Random strobe (Dimmer channel active)**
205-229					**Full independent Random Strobe (Dimmer channel disabled)**
230-234					**Red, Yellow, Cyan and Blue colour effects at variable speed**
235-255					**Open**

DMX CHANNEL	2	Parameter: **DIMMER**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-007					**Black-out**
008-255					**Proportional dimmer**

DMX CHANNEL	3	Parameter: **RED**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	4	Parameter: **GREEN**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	5	Parameter: **BLUE**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	6	Parameter: **AMBER**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

WALL MODE

1 GREEN
2 RED
3 BLUE
4 DIMMER
5 UNUSED
6 SHUTTER

DMX CHANNEL	1	Parameter: **GREEN**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	2	Parameter: **RED**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	**Function**
000-255					**Proportional colour**

DMX CHANNEL	3	Parameter: **BLUE**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	**Function**
000-255					**Proportional colour**

DMX CHANNEL	4	Parameter: **DIMMER**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	**Function**
000-255					**Proportional dimmer**

DMX CHANNEL	5	Parameter: **UNUSED**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	**Function**
000-255					**Unused**

DMX CHANNEL	6	Parameter: **SHUTTER / STROBE**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	**Function**
000-009					**Black-out**
010-019					**Open**
020-029					**Black-out**
030-119					**Strobe (from 3.27 s to 30 ms)**
120-149					**Pulse up (from 42.6 s to 120 ms)**
150-179					**Pulse down (from 42.6 s to 120 ms)**
180-204					**Random strobe (Dimmer channel active)**
205-229					**Full independent Random Strobe (Dimmer channel disabled)**
230-234					**Red, Yellow, Cyan and Blue colour effects at variable speed**
235-255					**Open**

5 CHANNELS MODE (M4CH)

1 **DIMMER**
2 **RED**
3 **GREEN**
4 **BLUE**
5 **AMBER**

DMX CHANNEL	1	Parameter: **DIMMER**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional dimmer**

DMX CHANNEL	2	Parameter: **RED**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	3	Parameter: **GREEN**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	4	Parameter: **BLUE**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	5	Parameter: **AMBER**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

4 CHANNELS MODE (RGBA)

1 RED
2 GREEN
3 BLUE
4 AMBER

DMX CHANNEL	1	Parameter: **RED**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	2	Parameter: **GREEN**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	3	Parameter: **BLUE**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

DMX CHANNEL	4	Parameter: **AMBER**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional colour**

1 CHANNEL MODE (1CH)

1 DIMMER

DMX CHANNEL	1	Parameter: **DIMMER**			
DMX range Value	**Mid Point DMX value**	**Move Range (degrees)**	**Mode**	**Option**	Function
000-255					**Proportional dimmer**

NOTES

NOTES

NOTES

The information contained in this publication has been carefully prepared and checked. However, no responsibility will be taken for any errors. All rights are reserved and this document cannot be copied, photocopied or reproduced, in part or completely, without prior written consent from D.T.S.
D.T.S. reserves the right to make any aesthetic, functional or design modifications to any of its products without prior notice. D.T.S. assumes no responsibility for the use or application of the products or circuits described herein.

MADE IN ITALY CE

DTS

The Lighting Company

ISO 9001:2008

D.T.S. quality system
is certified to the
ISO 9001:2008 standard

PROUDLY MADE IN ITALY

D.T.S. products are designed
and manufactured at the D.T.S.
plants in italy

0517I199

D.T.S. Illuminazione s.r.l. – Via Fagnano Selve 10-12-14 47843
Misano Adriatico (RN) Italia
Tel.: +39 0541 611131. Fax + 39 0541 611111
info@dts-lighting.it www.dts-lighting.it